Roaring 40s
THINKING ENERGY

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Mr Ian Woodward
Chairman, Reliability Panel
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By email (submissions@aemc.gov.au)

Dear Mr Woodward

Review of Tasmanian Frequency Operating Standards for Tasmania

Roaring 40s commends the pragmatic approach of the AEMC Reliability Panel (The Panel) in its Draft Determination. Specifically this approach will facilitate the entry of more frequency sensitive plant into the Tasmanian market without imposing substantially higher frequency control ancillary service (FCAS) costs or significantly impacting wind farm penetration. Roaring 40s also notes the accurate recognition of the specific issues in the Tasmanian context.

Roaring 40s agrees with the assessment that options D and E are not viable and that it is very important to limit the maximum contingency size to 144MW. Whilst Roaring 40s considers that the proposed solution is acceptable, the tightened frequency standards will have some impact on Tasmanian wind development.

A number of matters have been identified regarding the detailed implementation of the proposed arrangements that could substantially impact the both the cost of FCAS services and new large scale remote renewable generation such as Roaring 40s' Musselroe Wind Farm. These matters are detailed below:

Load tripping to minimise contingency size
It is envisaged that limiting the contingency size of large generation units to the 144MW limit would be achieved by tripping load in sympathy with the generation trip. It should be noted that any delay in tripping of the load could significantly increase the fast raise FCAS requirements, despite the contingency size being limited to 144MW.

To ensure the effectiveness of the limit on contingency size, Roaring 40s suggests that the 144MW limit be clearly defined as follows:

The contingency size will be capped a level that creates no greater faster raise FCAS requirement than instantaneous loss of 144MW supply at the regional reference node.

Contingency size limit and remote renewable generation

Economic development of remote renewable energy resources will often require a long transmission line connection to the existing transmission network. The proposed arrangements will effectively limit the amount of generation that can be

connected to the transmission system by a single circuit transmission line, noting that sympathetic tripping of industrial load is likely to be problematic from remote locations.

This issue is highly topical as Roaring 40s is in the advanced stages of developing Musselroe Wind Farm which has name plate capacity in excess of 144MW and is exposed to single circuit disconnection for over 100km from the farm gate to Norwood substation.

Roaring 40s proposes the following arrangements as practical means to minimise energy spill from this site while effectively mitigating the problem of raise FCAS costs:

- Limit the contingency size (as proposed above) to 144MW loss of supply as seen at the regional reference node. This would ensure that losses between the remote generators and the regional reference node are not included as contributing to FCAS costs.

- Consider relaxing the 144MW constraint under situations where there is ample fast raise FCAS available. A practical approach to this could be to increase the maximum contingency size allowable in real time based on a conservative assessment of the amount of fast raise FCAS that can be transferred over Basslink in the next dispatch interval.

FCAS price signals for new entrant generators

As a major long term investor in the Tasmanian generation sector, Roaring 40s is concerned about the permanence of the proposed arrangements given that frequency operating standards are reviewed on a regular basis. The potential for future change resulting in large wealth transfers between classes of participants introduces risk that will be valued by new entrants.

Roaring 40s recognises that measures which explicitly limit scope of future reviews are unlikely to be practical. It is suggested however, that The Panel clearly acknowledge the following principle in their final determination.

Frequency operating standard change can result in substantive wealth transfers that can be detrimental to dynamic efficiency due to the influence of FCAS price volatility on the decisions around new entrant generation. As such any change to the frequency operating standards that result in substantive wealth transfers between classes of participants should be avoided in the absence of a strong efficiency rational.

Roaring 40s acknowledges the complex nature of the technical, economic and regulatory considerations associated with the issues raised, and is happy to discuss further the issues identified in this submission. I can be contacted on phone 0400 537 944, or email andrew.jones@roaring40s.com.au.

Yours faithfully

Andrew Jones,
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